ADMINISTERING A SQL DATABASE INFRASTRUCTURE (M20764)

Course Code: 4396

Learn to administer and maintain Microsoft SQL Server 2016 databases.

In this course, professionals who administer and maintain SQL Server databases and who develop applications that deliver content from SQL Server databases will gain the knowledge and skills to administer a SQL server database infrastructure. Additionally, it will be of use to individuals who develop applications that deliver content from SQL Server databases. Additionally, it will be of use to individuals who develop applications that deliver content from SQL Server databases.

This course incorporates material from the Official Microsoft Learning Product 20764: Administering a SQL Database Infrastructure and can assist you in preparing for the 70-764: Administering a SQL Database Infrastructure exam.

This course is also available in the On-Demand delivery format with digital Microsoft Official Courseware (dMOC). Click here to purchase.

What You’ll Learn

- Authenticate and authorize users
- Assign server and database roles
- Authorize users to access resources
- Protect data with encryption and auditing
- Describe recovery models and backup strategies
- Backup SQL Server databases
- Restore SQL Server databases
- Automate database management
- Configure security for the SQL Server agent
- Manage alerts and notifications
- Managing SQL Server using PowerShell
- Trace access to SQL Server
- Monitor a SQL Server infrastructure
- Troubleshoot a SQL Server infrastructure
- Import and export data

Who Needs to Attend

The primary audience for this course is individuals who administer and maintain SQL
Server databases. These individuals perform database administration and maintenance as their primary area of responsibility, or work in environments where databases play a key role in their primary job.

Prerequisites

- Basic knowledge of the Microsoft Windows operating system and its core functionality.
- Working knowledge of Transact-SQL.
- Working knowledge of relational databases.
- Some experience with database design.
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CLASSROOM LIVE $3,095 USD 5 days

Classroom Live Outline

1. SQL Server Security
   - Authenticating connections to SQL Server
   - Authorizing logins to connect to databases
   - Authorization across servers
   - Partially contained databases

2. Assigning Server and Database Roles
   - Working with server roles
   - Working with fixed database roles
   - Assigning User-Defined Database Roles

3. Authorizing Users to Access Resources
   - Authorizing user access to objects
   - Authorizing users to execute code
   - Configuring permissions at the schema level

4. Protecting Data with Encryption and Auditing
   - Options for auditing data access in SQL Server
   - Implementing SQL Server audit
   - Managing SQL Server audit
   - Protecting data with encryption

5. Recovery Models and Backup Strategies
- Understanding Backup strategies
- SQL Server transaction login
- Planning a backup strategy

6. Backup of SQL Server Databases
   - Backing up databases and transaction logs
   - Managing database backups
   - Working with backup options

7. Restoring SQL Server 2016 Databases
   - Understanding the Restore Process
   - Restoring databases
   - Point-in-time recovery
   - Advanced Restore Scenarios
   - Performing a Piecemeal Restore

8. Automating SQL Server Management
   - Automating SQL Server management
   - Working with SQL Server agent
   - Managing SQL Server agent jobs
   - Multiserver management

9. Configuring Security for SQL Server Agent
   - Understanding SQL Server Agent Security
   - Configuring credentials
   - Configuring proxy accounts

10. Monitoring SQL Server with Alerts and Notifications
    - Monitoring SQL Server errors
    - Configuring database mail
    - Operators, alerts and notifications
    - Alerts in Azure SQL database

11. Introduction to Managing SQL Server by using PowerShell
    - Getting Started with Windows PowerShell
    - Configure SQL Server using PowerShell
    - Administer and Maintain SQL Server using PowerShell
    - Managing Azure SQL Server databases using PowerShell
12. Tracing Access to SQL Server with Extended events
   • Extended Events Core Concepts
   • Working with Extended Events

13. Monitoring SQL Server
   • Monitoring activity
   • Capturing and managing performance data
   • Analyzing collected performance data
   • SQL Server utility

14. Troubleshooting SQL Server
   • A Trouble Shooting Methodology for SQL Server
   • Resolving service related issues
   • Resolving login and connectivity issues

15. Importing and Exporting Data
   • Transferring data to/from SQL Server
   • Importing and exporting table data
   • Using BCP and BULK INSERT to import data
   • Deploying and upgrading data-tier applications

Classroom Live Labs
Lab 1: Authenticating Users
Lab 2: Assigning Server and Database Roles
Lab 3: Authorizing Users to Access Resources
Lab 4: Using Auditing and Encryption
Lab 5: Understanding SQL Server Recovery Models
Lab 6: Backing Up Databases
Lab 7: Restoring SQL Server User Databases
Lab 8: Automating SQL Server Management
Lab 9: Configuring Security for SQL Server Agent
Lab 10: Monitoring SQL Server with Alerts and Notifications
Lab 11: Using PowerShell to Manage SQL Server
Lab 12: Extended Events
Lab 13: Monitoring SQL Server
Lab 14: Troubleshooting Common Issues
Lab 15: Importing and Exporting Data

Nov 4 - 8, 2019 | 8:30 AM - 4:30 PM | HOUSTON, TX
Jan 20 - 24, 2020 | 8:30 AM - 4:30 PM | NEW YORK CITY, NY
Jan 27 - 31, 2020 | 8:30 AM - 4:30 PM | RESEARCH TRIANGLE PARK, NC
Feb 17 - 21, 2020 | 8:30 AM - 4:30 PM | WASHINGTON, DC
Mar 16 - 20, 2020 | 8:30 AM - 4:30 PM | DALLAS, TX
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VIRTUAL CLASSROOM LIVE $3,095 USD 5 days

Virtual Classroom Live Outline

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   - Implementing SQL Server audit
   - Managing SQL Server audit
   - Protecting data with encryption

5. Recovery Models and Backup Strategies
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   • Transferring data to/from SQL Server
   • Importing and exporting table data
   • Using BCP and BULK INSERT to import data
   • Deploying and upgrading data-tier applications

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ON-DEMAND $895 USD 90 days

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PRIVATE GROUP TRAINING  5 days

Visit us at www.globalknowledge.com or call us at 1-866-716-6688.

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